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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,145	02/27/2004	Christophe Preguica	Q79956	4599

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EXAMINER	
ZHANG, SHIRLEY X	
ART UNIT	**PAPER NUMBER**
2144	

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06/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/787,145	PREGUICA ET AL.	
	Examiner	Art Unit	
	SHIRLEY X. ZHANG	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This final office action is prepared in response to the amendments and arguments the applicant filed on February 26, 2008 in reply to the non-final office action mailed on November 26, 2007.

Claims 1-4 have been amended;

Claims 1-4 are now pending.

Response to Arguments

Applicant's arguments and amendments filed on February 26, 2008 have been carefully considered but are not deemed fully persuasive.

Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained here below, necessitated by Applicant's substantial amendments to the claims which significantly affect the scope thereof, and therefore require further search and consideration.

Accordingly, THIS ACTION IS MADE FINAL. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

1. **The objection to the abstract and the specification has been withdrawn** in view of the amended specification.

2. **Applicant's arguments regarding the amended claims have been considered but found unpersuasive.** As the amendments to the claims are substantial, the examiner has chosen to respond to applicant's arguments in the rejection of the individual claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "means for returning to **the sender**". There is insufficient antecedent basis for the limitation "the sender" in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over IETF Draft by Draves titled "Default Address Selection for IPv6" (hereinafter "**Draves**"), in view of U.S. Patent No. 6,748,434 to Kavanagh, and the email message posted by Keith Moore on the IETF IPv6 Operations (v6ops) Working Group's discussion board on November 18, 2002 (hereinafter "**Moore**"), and

Regarding claim 1 (currently amended), Draves discloses a method for destination address selection, where the selection is based on a set of rules which give the destination address that matches source address in the home address, label, native transport, and scope, etc. higher preference.

More specifically, Draves discloses means for receiving requests adapted to receive a request containing an IPv6 address of a first network element and a domain name; means for returning to the sender of the said request a response containing one or more addresses associated with a second network element corresponding the said domain name (Draves, page 3, paragraphs 1-2 disclose that as a DNS name resolution may yield both IPv6 and IPv4 address, algorithms for source address selection and destination address selection are proposed for choosing among both IPv6 and IPv4 addresses based on the type of address a requesting node is

assigned; examples are given by Draves in the same paragraph where the node can be assigned a global IPv6 or link-local IPv6; The disclosure of DNS in the above cited paragraphs implies that that a host in the network must first sent a name resolution request to the DNS server. The steps of "receiving requests" and "returning a response" recited in the claim correspond to the standard DNS query and response process; In an IPv6 network, the DNS query inherently contains the IPv6 address of the requesting node, i.e., a first network element as recited in the claim); and

Draves further discloses the address sequencing means, for sequencing, as a function of said IPv6 address of the first network element, a plurality of IPv6 addresses associated with said second network element (Draves, Section 6 "Destination Address Selection", Rule 4, 5, and 7).

Draves does not expressly disclose that the address sequencing is performed on the DNS server and the DNS server then put one or more IPv6 addresses associated with said second network element in the order of the sequence in said response.

However, Kavanagh discloses a domain name server (DNS) that contains an adaptive node selector for selecting and returning a list of addresses for network nodes based on certain criteria, such as the vicinity of the requesting node and the requested node (Fig. 2, column 2, lines 1-27, column 7, lines 45-59 and column 9, lines 9-19).

It would have been obvious to combine Draves and Kavanagh so that Draves's destination selection algorithm is implemented in Kavanaugh's adaptive node selector that is in the DNS server.

One would have been motivated to combine Draves and Kavanagh by Moore's email posting, which suggested that to solve the problem of address selection in an IPv6 transition

network, one should stop relying so much on applications/hosts choosing destination addresses and instead have the network make a best effort choice of the addresses.

Regarding the motivation for combined suggested by Moore, the Appliant argues in the reply that Moore fails to direct the person skilled in the art to any specific network element. The examiner respectively disagrees because Moore's message is disclosed in the context of DNS query/response, as the subject line of the email thread "**Re: getaddrinfo address ordering**" has suggested. It is well known by one skilled in the art that getaddrinfo is a standard socket interface function for resolving domain names in operating systems such as UNIX, Linux and Windows. Therefore, Moore's email clearly directs to the DNS server. Furthermore, the email message prior to Moore's states that "**I believe what you need is some (dynamic) server selection method**" (see the copy of Moore's reference attached to the prior office action). Therefore, Moore's disclosure is sufficient to motivate one skilled in the art to implement Draves's address selection algorithm in Kavanagh's dynamic domain name server.

Regarding claim 2 (currently amended), the combination of Draves and Kavanagh discloses the domain name server according to claim 1.

Draves further discloses that said address sequencing means is adapted to effect the sequencing as a function of the topology of the network, so that if the IPv6 address of the first network element is a local address belonging to an addressing space and the plurality of addresses associated with the second network element include at least one global IPv6 address and one local IPv6 address belonging to the same addressing space, the more local IPv6 address associated with the second network element corresponding to said addressing space is inserted at

a first position within said response (Draves, page 12, section 6 “Destination Address Selection”, “Rule 8: Prefer smaller scope", and the corresponding example in section 10.2 on page 15).

Regarding claim 3 (currently amended), the combination of Draves and Kavanagh discloses the domain name server according to claim 1.

Draves further discloses that said address sequencing means is adapted to effect the sequencing so that if the IPv6 address of the first network element is a "6 to 4" type address beginning with the prefix "2002" and the plurality of addresses associated with the second network element include at least one "6 to 4" type address beginning with the prefix "2002", a "6 to 4" type address beginning with the prefix "2002" is inserted at a first position within said response (Draves, page 11, “Rule 5: Prefer matching label”, and the corresponding example in section 10.2 on page 15).

Regarding claim 4 (currently amended), the combination of Draves and Kavanagh discloses the domain name server according to claim 1.

Draves further discloses sequencing the plurality of IPv6 address (Draves, section 6, “Destination Address Selection”), while Kavanagh discloses a DNS server with an adaptive node selector that filters and returns a list of addresses to the requesting node based on various criteria (Kavanagh, column 2, lines 20-28).

Therefore, the combination of Draves and Kavanagh would have created the domain name server according to claim 1, wherein the address sequencing means is adapted to put the

sequenced plurality of IPv6 addresses associated with said second network element in said response.

One would have been motivated to combine Draves and Kavanagh by Moore's email posting, which suggested that to solve the problem of address selection in an IPv6 transition network, one should stop relying so much on applications/hosts choosing destination addresses and instead have the network make a best effort choice of the addresses, i.e., the address selection should be done by a network device such as the DNS server.

Conclusion

THIS ACTION IS FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHIRLEY X. ZHANG whose telephone number is (571)270-5012. The examiner can normally be reached on Monday through Friday 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. X. Z./
Examiner, Art Unit 2144
05/23/2008
/John Follansbee/

Supervisory Patent Examiner, Art Unit 2151